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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/730,277      | 12/05/2000  | Gary Gao             | 24598A              | 6965             |

22889 7590 07/31/2003

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| EXAMINER |
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HOFFMANN, JOHN M

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1731

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                            |  |
|------------------------------|-------------------------------|----------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>09/730,277 | Applicant(s)<br>GAO ET AL. |  |
|                              | Examiner<br>John Hoffmann     | Art Unit<br>1731           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bohy 4071341.

Looking to figures 2-3 of Bohy: 10 is the bushing, 13 is the first nozzle, 15 is the second nozzle. It appears that the fluids and the size applicator are simply method/environment of use type limitations. In the event that they are relevant, see col. 3, lines 20-62.

Claim 2 is clearly met.

Claims 1-4, 6-7, and 9-11 all are rejected under 35 U.S.C. 102(b) as being anticipated by Loeffler 4168959.

Looking to figure 4 of Loeffler: no bushing is labeled - but it is easy to see them in the area of "109". The burners 12 (figure 1) are deemed to be air nozzles. It would be inherent that one could force air through them. 121 is the second nozzle. The size applicator is simply a method/environment of use type limitation. One can put a size applicator down stream of the apparatus. In the event that the sizing applicator is a structural limitation: water nozzles (121) and binder nozzles (122) alternate in the horizontal downstream direction of feature (14): see col. 7, lines 32-55. The binder nozzle is deemed to be a "size applicator" because one could spray a size with it.

Claims 2-4 are clearly met from the above relevant portions of Loeffler.

Claim 6: This interpretation is different than above in that 12 is not considered to be the first nozzle. There are two manifolds 116 and 117. One can convey air in either manifold, such as if someone were to be drying out the pipes. It is deemed that one can choose any downstream nozzle 122 to be a sizing applicator, any of the more upstream nozzles to be the water/second nozzle and any other of the upstream nozzles to be the air/first nozzle. It is noted that one can sequentially change the fluids which flow through the pipes.

Claim7: it is deemed that the sizing applicator language of the preamble does not import any structure into the claim - because there is no mention of the applicator in the body of the claim, and the applicator is not necessary for the invention. Nozzle 12 is deemed to be the second nozzle and any 121 nozzle is the first nozzle. Alternatively,

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the first and second nozzles could be a 120 and a 121 (or a 121 and a 120) because the fluids are simply a method of use - an artisan could force nearly any fluid through either of the nozzles. The atomized water would have air traveling with it.

Claim 9: one can pump air through the nozzles if one wishes. Alternatively, the water jet would have air entrained in it. It is noted that the claim is interpreted as the second fluid comprises air. However, it is a method of use limitation.

Claim 10: feature 12 attenuates the fibers in the horizontal direction (see col 4, lines 8-10). This is the same direction (i.e. horizontal) that the nozzles are arranged.

Claim 11: all of the nozzles 121, 122 and manifolds 116-119 are at least indirectly coupled together into a single unit.

One nozzle 122 is deemed to be a size applicator. One can apply a size with it. After, or before or during the production of fibers.

Claims 1, 4, 5 and 7, 9-10, 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Clocksin 5955011.

Looking at figure 1 of Clocksin: 46 is or has the bushing (see col. 1., lines 30-35). 52 has first nozzles (see col 5, line 21-24). 68 at feature 24 is deemed to be the second nozzle and if a size applicator is needed, it is the 68 within conduit 34.

AS to claims 4-5, see col 7, lines 48-58.

Claims 7, 9-10 and 12-13 are clearly met.

Claim 14: Col. 8, lines 7-12 state that there can be additional nozzle "assemblies". This means at least two additional nozzles in tube 24: for a total of three

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or more. Col. 7, lines 8-12 indicate that tube 24 can be rectangular or square. The paragraph spanning cols. 9-10 discusses the placement of nozzles in tube 34. There is no discussion about the placement of three or more nozzles in tube 24. However, if one were to place the nozzles of a rectangular or square tube 24 in the preferred manner for tube 34 (i.e. "each...are [sic, is] located on a different wall"), then there would be one pointed up, one down, and two which are horizontally oriented. The two horizontal nozzles would then be at an angle of 0 degrees with respect to the bushing plate. It would have been obvious to orient the additional nozzle assemblies in each of the walls of tube 24, because that is one of the possible nozzle arrangements that Clocksin discloses.

Alternatively or additionally. Each system 42 and 44 are evaporative cooling systems; the specification mentions their similarities - for example see col 8, line 66 to col. 9, line 17. It would have been obvious to have the nozzles arranged in the identical manner for the same manner as that in the 34 cooling tube, because one would expect that the preferred arrangement for one cooling apparatus would also be the preferred arrangement for substantially the same cooling apparatus. It would have been obvious to have nozzles on each wall so as to spray all sections of the fiber flow. If all of the nozzles were on the top, one would expect that only the top would be cooled.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

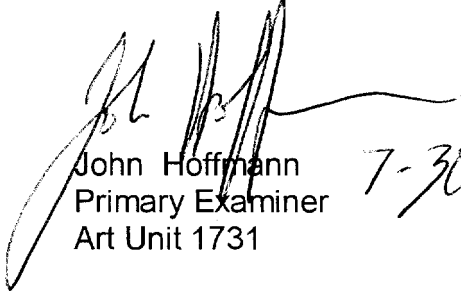
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-372-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.



John Hoffmann  
Primary Examiner  
Art Unit 1731

7-30-03

jmh  
July 30, 2003